DOCUMENT RESUME

ED 057 339 AC 012 199

AUTHOR	Boone, E. J.; And Others
TITLE	Programming in the Cooperative Extension Service: A Conceptual Schema.
INSTITUTION	North Carolina State Univ., Raleigh. Dept. of Adult Education.
REPORT NO	Misc-Exten-Pub-72
PUB DATE	Jun 71
NOTE	23p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Agricultural Education; Behavioral Objectives; Behavior Change; Behavior Patterns; *Change Agents; Conceptual Schemes; Coordination; Educational Accountability; Educational Planning; *Extension Agents; Interpersonal Competence; Program Design; *Programing; *Rural Extension; Social Systems; Volunteers

ABSTRACT

This document supports the position that programing encompasses all of the planned and coordinated educational activities of professional staff members, volunteer leaders, and the actual learners in designing and effecting educational strategies that should culminate in desirable changes in the patterned behavior of people and the alteration of systems. It is divided into six sections. The First, A Conceptual Schema for Programming the Cooperative Extension Service, explains the concept of programing and outlines the scope of the paper. The next section, The Institution and Its Renewal Process, lists the factors required for success by members of an Agricultural Extension Staff in their role as change agents. The Third section, Linking the Institution to Its Publics through Need Analysis and Leader Involvement, emphasizes that change agents must become intimately acquainted with social system of the area within which educational programs are to be effected. The fourth section, Program Design and Implementation, describes the major challenge confronting change agents as that of translating needs of target publics into a meaningful program design and developing effective strategies for its implementation. A major challenge confronting the educational institution is that of determining the impact of its planned programing efforts in effecting desired behavioral changes in its publics; this challenge is described in Section 5, Program Evaluation and Accountability. The last section contains references. (CK)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

PROGRAMMING IN THE COOPERATIVE EXTENSION SERVICE

a conceptual schema

ED057339

E. J. BOONE

R. J. DOLAN

R. W. SHEARON

Department of Adult and Community College Education
North Carolina State University, Raleigh, North Carolina

AC012144

EDO 573339

PROGRAMMING IN THE COOPERATIVE EXTENSION SERVICE
a conceptual schema

E. J. Boone
Assistant Director,
North Carolina Agricultural Extension Service
and
Head, Department of Adult and Community
College Education

R. J. Dolan
State Training Leader,
North Carolina Agricultural Extension Service
and
Professor,
Department of Adult and Community
College Education

R. W. Shearon,
Assistant Professor,
Department of Adult and Community
College Education

Published by
THE NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

North Carolina State University at Raleigh and the U. S. Department of Agriculture, Cooperating. State College Station, Raleigh, N. C., George Hyatt, Jr., Director. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

Misc. Extension Publication 72 June 1971

CONTENTS

	Page
A CONCEPTUAL SCHEMA FOR PROGRAMMING IN THE COOPERATIVE EXTENSION SERVICE	1
The Concept of Programming	1
The Scope of This Paper	2
THE INSTITUTION AND ITS RENEWAL PROCESSES	2
LINKING THE INSTITUTION TO ITS PUBLICS THROUGH NEED ANALYSIS AND LEADER INVOLVEMENT	6
PROGRAM DESIGN AND IMPLEMENTATION	9
Long-Range Program	10
Plans of Work	12
Activating Plans of Work	14
PROGRAM EVALUATION AND ACCOUNTABILITY	15
LIST OF REFERENCES	18

A Conceptual Schema For Programming in The Cooperative Extension Service

The Concept of Programming

Programming is a complex and all-pervasive concept that is used to explain and describe the individual and collective efforts of professional Extension staff members and volunteer lay leaders in planning, executing, and evaluating educational programs. Its connotation and usage vary among the 50 state Extension services and 3150 county Extension services.

The tendency has been to refer to any single program activity that may involve one or more staff members and/or leaders within the Service as programming. The limited research findings on Extension programming lend credence to the connotation and usage accorded the concept. Most of these research efforts have been focused on functions concerning leader involvement in program planning and various aspects of teaching-learning situations generally enumerated in teaching plans and plans of work. This narrow view of the concept has tended to delimit its potential utility as a facilitating and unifying force in the Cooperative Extension Service.

Role ambiguity, the evolvement and maintenance of semi-isolated staff groups, the lack of effective linkage between staff development programs and specified competencies needed by staff members to maximize their program effectiveness, the dependence of professional staff members on prescriptive program strategies or procedures, and stereotyped images of publics possessed by Extension staff members are symptomatic of Extension staff members' lack of understanding of programming in its total context.

The position advocated by the authors of this treatise is that programming encompasses all of the planned and coordinated educational activities of professional staff members, volunteer leaders, and the actual learners in designing and effecting educational strategies that should culminate in desirable changes in the patterned behavior of people and the alteration of systems. That is, the members of every level of the Extension organization, as well as members of the publics toward whom their change efforts are directed, have complementary roles to perform in effective programming. The reciprocal directional flow of program inputs is both vertical and horizontal. Situational factors at the teaching-learning level and at other points in the organization at which decisions are implemented must be continually considered in directing and redirecting the programming efforts of the organization. Specifically, problems or needs experienced by staff members, leaders, and learners at the several operational levels should be considered as essential inputs in the decision-making process. Conversely, the comprehensive and specialized perspective possessed by those at the higher administrative and program levels of the organization (i.e., administrators, supervisors and specialists) should positively influence program decisions taken and actions effected at the program implementation levels.

This conceptualization of the programming process in the complex community-based adult education organization, such as the Cooperative Extension Service, has its origin in concepts, theories, and principles contained in the behavioral sciences. The Cooperative Extension Service is viewed as a dynamic, responsive system oriented to the delivery of educational programs designed to satisfy or fulfill the constantly changing needs of many diverse publics. An Extension Service is a system composed of actors applying their intellectual and material resources in concert to improve the socio-economic status of people. As situations within which people live and interact change—so must the posture of the Extension Service change. The objectives, the procurement and structuring of resources, and the management of these resources within the Extension Service must be subject to continuing scrutiny and modification to assure relevancy and maximal return in terms of the changing needs of people. In addition, as changes in the social patterns of publics occur, the educational strategies employed by professional change agents must be modified.

4

The Scope of This Paper

It has been rather clearly established that programming is a dynamic decision-making and decision-implementing process that encompasses the individual and collective efforts of professional staff members at all levels of organization, leaders and the actual learners in generating programs designed to alter people's behavior and structured systems.

The ubiquitous nature of programming, occurring as it does at all levels of organization, presents problems of conceptualization. However, the limited research findings specific to Extension programming and the wealth of concepts, theories, and principles derived from the behavioral sciences can be cast into a heuristic conceptual schema that is viewed by the authors as a useful way of thinking about and endeavoring to acquire a more thorough understanding of programming as it occurs in the Cooperative Extension Service.

Figure 1 is a conceptual schema for planning, implementing, and evaluating program decisions and actions in an educational, task-oriented organization that functions in a voluntary setting. Because of the tentativeness and exploratory nature of research conducted to this point, the four macro phases and their respective elements contained in the schema are set forth for heuristic purposes.

THE INSTITUTION AND ITS RENEWAL PROCESSES

An educational institution (i.e., Cooperative Extension Service) exists to facilitate desired changes in its clientele and in their social environment in concert with available resources. It is not static, but one in which adjustments are continually being made in its structure and processes as it adapts to meet or serve the needs of its relevant publics in a changing social environment.

The extent to which positive results are obtained through the programming efforts of the Cooperative Extension system is contingent upon many variables. Among these is the degree to which there is established or defined a systemic framework within which staff members are expected to function.

Staff members need to examine, understand, and accept the structure of the educational system through which their programs will be generated and conducted. Staff members must become thoroughly knowledgeable of and committed to the philosophy of the system, which

The institution and its renewal processes	Linking the institution to its publics through need analysis and leader involvement	Program design and implementation			Program evaluation and accountability
		Long-range program	Plans of work	Activating plans of work	
Understanding and commitment to the structure of the institution (i.e., Cooperative Extension Service): • Philosophy • Objectives • Roles • Relationships	Study, analysis, and mapping of county and/or area.	Specification of macro needs.	Delineating, ordering, and sequencing micro needs.	Mobilizing and utilizing resources.	Determining program outputs.
Knowledgeable about and skilled in management: • Staffing • Staff development • Supervision • Accountability	Identification and analysis of subsystems within county and/or area.	Delineation of macro objectives.	Specifying instructional level objectives.	Monitoring the teaching-learning process.	Assessing program inputs.
Understanding of and commitment to a tested conceptual framework for programming: • Linkage of institution to its publics through need analysis and leader involvement. • Program design and implementation tailored to the needs of Extension's publics.	Identification of target subsystems.	Designation of strategies for obtaining objectives.	Selecting and organizing learner activities.	Reinforcing learners.	Utilizing evaluative findings for program revisions, institutional renewal, and accountability to publics, funding sources, and to the profession.
Understanding of and commitment to continuous institutional renewal.	Identifying and interfacing with leaders of target subsystems.		Formulating plans for evaluation.	Revising and redirecting activities based on feedback.	
	Formation of leadership systems representative of target subsystems.				
	Needs identification and analysis specific to target subsystems.				
	Relating needs of target subsystem to the larger system and identifying macro needs common to two or more subsystems.				

FIGURE 1. A CONCEPTUAL SCHEMA FOR PROGRAMMING IN THE COOPERATIVE EXTENSION SERVICE

provides a general framework for the behavior of its members; macro objectives, which delineate the ends to be accomplished by the system; policies, which guide and help to regulate individual and collaborative behavior of staff members in achieving the ends of the system; roles which specify required responsibilities of individual staff members and job groups in achieving the objectives of the educational system; and relationships, which provide a basis for linking the efforts of individual staff members and job groups in attaining maximal program impact.

Another significant factor for achieving educational effectiveness is the extent to which staff members become knowledgeable about and skilled in management processes that will yield maximal results as specified in the macro objectives of the system. It is imperative that careful attention be given to the recruitment of staff resources, the development of staff resources, the application of supervisory practices that will facilitate achievement of the macro objectives of the educational institution, and the development and utilization of a viable accountability system.

A third requisite is the extent to which staff members understand and are committed to a tested conceptual approach for generating and effecting programs of change with their many and diverse publics. Such a conceptual framework would include basic concepts, theories, and principles derived from the behavioral sciences about planned change, linkage with publics through need analysis and leader involvement, and the design and implementation of programs specifically tailored to the perceived and analyzed needs of these distinctive publics.

A fourth variable of import to program success is the acquisition of a keen sensitivity and commitment to objective, systemic analysis for facilitating system responsiveness and renewal to the constantly changing needs of its publics. In a society where needs of clientele and patterns of thinking, feeling, and acting are in rapid transition, the system must be renewed by making adjustments in its structure and processes to accommodate adaptation to its changing social environment.

To facilitate effective functioning of the system (i.e., Cooperative Extension) in achieving its mission, it is important that continuous attention be given to the socialization of its professional members and the leaders of its publics. It is imperative that staff members and lay leaders be afforded a continuing opportunity to provide inputs that will cause the system to be more responsive to the actual needs of its publics. The foregoing processual tasks are advanced as possible means for achieving these ends, and hence increase the potential effectiveness of the total system as a dynamic instrument of change.

1. *Change agents must become thoroughly knowledgeable of and committed to the structure of the educational institution through which its programs will be effected, giving particular attention to philosophy, objectives, policy, roles, and relationships.*

The degree to which professional educators understand and identify with the basic structural elements of the complex Cooperative Extension system is related to the following: (1) the manner in which the philosophy of the system is diffused among its members and commitment secured; (2) the opportunity provided the professional staff in helping define and modify the educational objectives for the system that clearly indicate the behavioral changes sought in various clientele groups; (3) the opportunity provided staff members to contribute to decisions taken with respect to the definition and establishment of policies to guide program efforts; (4) the manner in which roles of staff members are defined and communicated to all concerned; and (5) the manner in which the expected relationships between various staff groups are established and these groups know and understand them.

Philosophy. The total staff of the Cooperative Extension system must become thoroughly knowledgeable of and committed to its philosophy. The philosophy of an institution is its "value framework" that has evolved over an extended time. Constant effort must be expended to make the value framework of an institution more consistent, more comprehensive, and more workable than before.

The philosophy of Extension is that people must be assisted within a democratic framework. This philosophy reflects the firm conviction that people adjust to change most rapidly in a democractic environment in which self-expression, self-direction, and self-improvement are encouraged. This development can best be accomplished through a program of purposeful continuing education in which people, through their own initiative, identify and solve problems directly affecting their welfare. To this end, Extension starts with people where they are by helping them to attain a more satisfying way of life. If one accepts the proposition that the philosophy or value framework of an institution influences the behavior of its members, then every educational system should develop a functioning and articulate philosophy, communicate it to its members, and take necessary action to seek commitment.

Objectives. Just as change agents must understand and be committed to the philosophy of the system, objectives or ends must be understood

at all levels of the system. To begin with, there must be some understanding of the macro objectives of the total system. These are the broad objectives which have their origin in the contemporary needs of the institution's publics and which constitute the framework within which all decisions and actions about the institution's program must be linked.

Not only must macro-level objectives be understood, but staff members must understand the objectives of various subsystems (i.e., job groups) such as those of district supervisory staffs, specialist groups, administrators, and those at area or county levels. By being knowledgeable about the objectives of various subsystems, individual staff members can grasp the potential roles of such groups and their complementary linkage, and hence make better utilization of such resources in the performance of their expected roles.

Staff members' understanding and acceptance of the macro objectives of the educational system and objectives of subsystems contained therein does not result from edict, but rather through the deliberate and continuous involvement of the staff in their formulation.

Policy. An important means for attaining the objectives of the system are carefully delineated policies which guide and help to regulate individual and collaborative behavior of staff members. Policies provide guides to the decisions and actions of staff members as they engage in purposeful and planned interaction aimed at attaining the objectives set forth for the system.

Staff members must have a working knowledge of all policies and understand the degree of flexibility contained in each.

Role. The expected roles of staff members have their origin in the macro objectives of the system and the objectives of their parent subsystems that must be subordinate to and contributory to the macro objectives. The roles played by people in any system are interrelated. This necessitates that the activities of various staff positions and groups must fit and mesh together in the pursuit of the macro objectives of the system if maximum results are to be attained.

A common problem in most complex educational systems is that too little attention has been given to the clear definition and linkage of roles to objectives. This factor has tended to stifle the effectiveness of staff efforts in relation to the attainment of the macro system objectives. As systems expand their scope and consequently enlarge their staffs, the roles of staff positions and groups and the interrelationship of these roles in terms of the ends sought by the organization tend to become hazy and incoherent. Staff activities may become fragmentary, and often individual staff groups—because of lack of frequent and continuous interaction with their counterparts in pursuit of the macro objectives of their parent institution—begin to function as autonomous units. The need for planned and deliberate staff involvement in the continuous redefinition of their roles, as well as those of their colleagues, is apparent if the efforts of the occupants of individual positions and the several staff groups are to be effectively focused on the objectives of the organization.

Relationships. Within the general social system (i.e., Cooperative Extension Service) are a number of formal and informal subsystems. Certain leadership patterns, power relationships, role relationships, behavioral expectations, and attitudinal patterns exist within the small subsystems as well as in the larger system. Each of the subsystems, although intimately related to each other and to the larger system, also has an established pattern of operation.

In the complex Cooperative Extension system, these subsystems may include specialized staff groups that are housed in close proximity to the central organization and operational (field) units located some distance from the central office. Because of this factor, programming must occur at the various levels of the organization. The real challenge is that of having these subsystems identify with the general social system, but at the same time permitting them sufficient flexibility to make and implement decisions at their respective levels of operation. Although plans are made and implemented at the several levels of organization, it is of utmost importance that they be coordinated and effectively related to the overall plans of the general organization.

The task confronting the large complex educational system is that of establishing relationships between and hence linking the programs of its several subsystems. Direction provided by the general social system is meaningful only to the extent that the staff groups at the various levels of the system understand and can adapt to their specific situations. It is not enough to have the professional leadership understand and accept proposed changes; ultimately, the people who are to be affected by the change also must understand and accept it.

Professional and lay leadership must understand the proposed change, its anticipated effects on on-going programs, and accept it if maximum system impact is to be felt at the operational level. Essentially, the proposed change is never accepted in its totality. Rather, the desirable aspects of the change (as perceived by the adopters) are integrated into or related to their on-going program activities.

2. *Change agents must become knowledgeable about and skilled in management processes that will yield maximum results as specified in*

the macro objectives of the educational system (i.e., Cooperative Extension), giving particular attention to staffing, staff development, supervision, and accountability.

The extent to which the objectives of a system are achieved will depend to a large measure upon the processes through which resources are identified, attained, and managed. Of crucial importance are staffing, staff development, supervisory, and accountability processes and practices utilized by the system.

Staffing. The identification and selection of staff members who have the training, background, competencies, and potential capacity for growth required of the job to be performed, is of paramount importance to the viability and success of the Cooperative Extension Service. Unless careful attention is given this process at all system levels, then management will have to be satisfied to expend enormous amounts of energy on training. Conscious and deliberate efforts must be made to seek and secure county personnel, specialists, supervisors, and administrators who have the qualities and competencies that are in consonance with the philosophy and objectives of the system.

Staff Development. Dynamic systems are those that provide opportunities for the continuous self-renewal of its members based on their needs as the system adjusts its objectives to the changing needs of its publics. Even if the most competent personnel are recruited into the system, the system can quickly become reified and obsolete, unless these individuals are afforded continuous opportunity for self-renewal. Staff members at all levels should have the opportunity to define their training needs and be given the opportunity to engage in in-service and graduate education as part of, and requisite to the changing requirements of and hence performance of their roles.

Supervision. An organization may bring into its system the most competent personnel available, and provide a comprehensive and intensive training program. But, unless its members are given an opportunity to function, the system may lose much of its potential effectiveness. Change agents must learn to share leadership and develop the capacity of colleagues and subordinates to function. Not only must leadership be exercised and a teamwork approach followed, adequate guidance must also be provided. People generally want to know if they are performing adequately and want assistance in marshalling and applying resources to achieve. The change agent, through the application of appropriate supervision styles, can enhance the system's effectiveness immensely.

Accountability. In the long run, continuing and increased funding and support for educational programs is positively related to the demonstrated efficiency and effectiveness of the system. Educational systems have always been accountable to their relevant publics, their parent institutions, funding agencies, and legislative bodies at the local, state, and federal levels. But, more than ever before, there is a demand for accurate manifestations of output in relation to the objectives of the system and to the efficient utilization of resources to achieve desired results.

Change agents must understand the significance of accountability and commit energy and resources to means by which the system can demonstrate to publics and funding agencies that desired results are being obtained. Accountability is dependent on the development and utilization of evaluation systems that measure the expected behavioral changes in individuals and groups.

The evaluation system must not only measure the behavioral changes that result, but also provide measures of effective application of learned behavior in the real social world. Finally, the system must provide some measure of whether desired changes have occurred in the social and economic patterns of relevant publics. The "proof in the pudding" is whether the program has reached its micro teaching level objectives and macro system objectives—assuming that objectives have been based on real needs.

In addition to the utilization of systematic evaluation systems, appropriate means must be established and utilized at all levels of the educational institution for reporting results in a form that demonstrate a degree of effectiveness. The Cooperative Extension Service SEMIS reporting system is an example of a concerted effort to collect, analyze, and report data illustrative of its educational effort. However, this effort must continuously be tested, studied, and revised to facilitate maximum results.

The accountability process requires the system to (1) identify the real needs of relevant publics, (2) develop program designs to meet needs, (3) package program delivery systems for effective implementation, (4) develop realistic and feasible evaluative systems, and (5) establish meaningful systems through which results may be disseminated to those to whom the educational system is accountable.

An increased emphasis on the accountability process can have functional consequences for the improvement of the Cooperative Extension Service's program, its processes by which programs are developed and implemented, and its systemic structures through which the needs of relevant publics may be met.

3. *Change agents must understand and become committed to a tested conceptual frame-*

work for generating and effecting programs of change with their many and diverse publics.

Change agents must understand the total setting within which Extension programs are generated and effected. They must acquire and utilize a tested conceptual framework that enables them to identify the needs of their publics, to obtain a commitment from such publics to act, and to design and implement programs that will produce substantive changes in the learner and his social structure.

4. *Change agents must acquire a sensitivity and commitment to objective systemic analysis for facilitating system responsiveness and renewal to the constantly changing needs of its publics.*

Systems that have become institutionalized to the extent that they are satisfied with the *status quo* will find that contemporary society does not slow its pace to maintain social balance. In such situations, the system may find itself working desperately to survive during periods of rapid change.

To cope with this condition, members of the system must build in system renewal processes. There must be constant vigilance of, and a well-developed sensitivity to, the changing world in which the system operates. Sensitivity to the needs of the people that the system serves and the willingness to change structures and processes within the accepted philosophy of the system will ensure viability. Those organizations that are content to follow the same objectives year after year are not likely to remain viable educational forces.

The general process by which renewal operates is: (1) by intensive involvement of professionals and lay leaders in developing programs; (2) through intensive and open dialogue, confrontation, and coping with problems affecting the structure and processes of the system; (3) a thorough understanding of prior and present historical bases, programs, and clientele; (4) sensitivity to needs and the potential for meeting needs; and (5) understanding change, the societal influences, and how to cope with change. Only when system members can objectively study themselves, the system, the program, and the environment in which they function can adjustments be made within the system and adaptation made to the social environment for maximal effectiveness.

LINKING THE INSTITUTION TO ITS PUBLICS THROUGH NEED ANALYSIS AND LEADER INVOLVEMENT

Extension programs have their origin in the felt (perceived) and analyzed needs of the Cooperative Extension Service's public. Contingent upon the perceived mission of a given Cooperative Extension Service, these publics could conceivably constitute the total population or specified aggregates of people within a designated geographic or political entity.

The determination of the needs of Extension's perceived public is the most challenging, perplexing, and necessary task confronting the professional Extension staff member. Research findings on motivation, learning, and change underscore the absolute necessity of focusing the voluntary-oriented educational organization's programs on the perceived (felt) needs of its target publics if the attention of such groups toward change is to be obtained.

These studies further emphasize that the retention of the interest and commitment of these publics to change will depend to a large measure upon the immediate and continued satisfaction that they experience with respect to the gratification or fulfillment of perceived needs.

Man's needs are determined by a multitude of psychological, social, and cultural factors. The origin and intensity of such needs are related or linked to systems of patterned interaction and processes of socialization through which man acquires a distinctive life style. The life style of a given individual is the psychological, social, and cultural manifestation of cumulative behavior (covert and overt) that has been learned slowly and sometimes painfully throughout his life span in responding to stimuli encompassed in his social environment.

The expansiveness of man's social environment and hence his degree of socialization are directly related to the experiential opportunities afforded him during his life span. Social environment includes both cultural and social forces. Culturally, man's life style is a manifestation of learned behavior acquired in the process of growing up. It includes not only his way of making things and doing things, but also his pattern of interaction with others, attitudes and values fostered, beliefs and ideas possessed, and the feelings with which he responds.

Socially, man's learned behavior, his life style, and hence his needs are influenced by expectations and normative standards imposed upon him by primacy, peer, reference, and social groupings with which he identifies.

The import of cultural and social forces on man's behavior cannot be overly emphasized. To cope with man's needs, it is imperative that the professional change agent understands how they are linked to his cultural heritage. The needs of an individual are meaningful to a given person to the extent that he perceives that their fulfillment will help him achieve greater equilibrium with his defined cultural context and social environment. Too, the influence of peer and

social groups on one's needs must be taken into account in diagnosing needs. That is, the expectations of peer and social groups on the behavior and needs of the individual may be more dominant than any other single factor.

Intervention in the lives of people through educational programs developed and promoted by agencies such as the Cooperative Extension Service requires that change agents understand the culture (way of life) of the individuals or group that they are attempting to change, and to have access (entree) into the distinctive social grouping in which such culture is nurtured and maintained.

The existence of definable social groupings in American society is all-pervasive. Man's identity with such groupings commences with the cradle (family) and extends throughout his life span. They (social groups) have their origin in two social processes, namely, differentiation and evaluation. These groupings are established and maintained through patterned interaction (social relationships) of members of the group and their adherence (conformity) to mutually agreed upon norms and standards that result in shared goals, beliefs, values, attitudes, customs, and sentiments.

A significant element of such groups is the evolution of influentials as leaders who wield considerable influence on the behavior and actions of individual members, as well as the total collective group. These persons acquire their positions of influence through reputation, heritage, as well as a host of other means. They mirror the values, beliefs, and sentiments of their followers. Their leadership positions may be of a formal or informal nature. These leaders generally possess the authority or power to grant or deny access to their respective group.

In maintaining one's position within such grouping, the average person continually strives to measure up to the expectations of his peers and the leadership contained therein. His intrinsic motives are oriented toward the preservation of a way of life to which he is accustomed and which makes sense to him as well as to the expectations of his peers.

It is apparent from the foregoing discussion that representatives or change agents of the Cooperative Extension Service cannot take lightly the task of relating programs to the needs of their publics.

Simply put, the content of programs designed to effect change in established behavior patterns of man cannot be determined as a result of hunch or hearsay. Too, they cannot assume that what is good for one sector of the population will be good for other sectors. Rather they must possess the ability to differentiate between or map publics, their needs, the sources of such needs, and social-cultural factors which may facilitate or impede participation of such publics in programs designed to help them satisfy or fulfill needs.

Change agents must be capable of identifying the leaders of target publics (social groups) to establish effective linkage with these leaders through meaningful dialogue and the delivery of programs that will result in the immediate gratification of intrinsic needs. Only after intrinsic needs experienced by a given public are satisfied can the change agent expect any success in having such publics cope with extrinsically motivated needs. That is, Extension agents must begin their program efforts with people where they are in the initial stages of the change process rather than attempting to call people's attention to needs with which they may be unfamiliar or in which they have little interest.

Extension (change) agents must recognize that the socialization process is slow and arduous, and that its beginning commences with the perceived needs and motives of the learner in his social environment. Both the potential learner and change agent must be involved in the diagnosis and identification of needs that will ultimately constitute the basis for an educational program.

From an operational context, several important and necessary tasks can be inferred for the professional change agent in determining the needs of his publics for inclusion in the Extension program. The foregoing processual tasks are suggestive, and no claim is made regarding their inclusiveness or completeness. They are set forth merely for the purpose of providing the change agent a framework for thinking about the job that confronts him.

1. *Change agents (county or area Extension personnel) must become intimately acquainted with and knowledgeable about the social system (i.e., county or area) within which educational programs are to be effected that will result in desirable changes in the patterned behavior of individuals and alteration of systems contained therein.*

County Extension staffs or other appropriately designated unit staffs at the operational level must become thoroughly acquainted with their respective counties or areas within which their collective efforts are to be directed toward the development and implementation of educational programs. That is, county staffs or their appropriate counterparts must acquire a comprehensive cognitive map of their respective systems. Such a cognitive map must encompass more than a mere knowledge of political or geographic boundaries. It must include a thorough knowledge and understanding of the people who reside within the county or area,

including their psychological, social, cultural, and economic characteristics.

A common fallacy of many professional adult educators is to assume that all people residing within a given area or county are homogeneous. Although people may be tied together spatially and in terms of a common government, numerous differences between and among people may and often do exist with respect to life styles, heritage, socio-economic status, culture, patterns of interaction, and normative standards.

Recognition of these differences is the first essential in mapping strategy for identifying needs and ultimately tailoring programs to the needs of the many and different clientele groups or publics that could conceivably reside within a county or area.

2. *Change agents (county or area Extension personnel) must identify and map the subsystems (social groupings) within the larger social system (county or area), giving particular attention to the inferred or defined mission of such groups, their membership, patterns of interaction, values, beliefs, sentiments, norms, leadership, and social-cultural origin and heritage.*

A second logical stage to macro mapping of the county or area is the discernment of distinctive patterns of interaction between and among people residing in the county or area. These patterns of interaction are reflected in social groupings that are comprised of aggregates of people bound together by common goals, life styles, values, beliefs, sentiments, and heritages. The behavior of these groups is generally governed and regulated by normative standards that are enforced by their membership and leaders. Entree into these groups requires the exhibition of understanding and empathy by the professional. Equally important is knowing about points of access, namely, the leadership of the groups.

The importance of knowing about and understanding the differences that exist between these groups is highlighted by the fact that their needs and hence their readiness to participate in externally contrived programs will vary. For example, variations in the socio-economic status and the cultural heritage of social groupings cannot be taken lightly in designing programs for these groups. Nutrition programs planned for one particular group may not be compatible with the needs and interests of another group.

Numerous distinctive social groupings could exist within a county. The identification of such groupings based upon special interests, ethnic factors, socio-economic status, religion, culture, etc., is paramount to the potential and probable success of county Extension staff members in effecting programs that will yield maximal change in the patterned behavior of their publics.

3. *Based upon a thorough diagnosis of the subsystems and their perceived relevancy to the mission of the parent organization (Cooperative Extension Service), change agents (county or area Extension personnel) must determine target systems.*

The present or potential relevancy of the numerous subsystems or groupings within a county will be determined by the professional change agents' perception of the mission of their parent organization. That is, the objectives and resources of the Cooperative Extension Service will need to be considered in sorting out those subsystems toward which professional change agents at the operational level should direct their efforts.

This sorting out or screening process should ideally culminate in the delineation or definition of target subsystems. It is reasonable to assume that, as the mission of the Extension Service changes, efforts will be expended by its professional staff members in redefining target systems.

4. *Change agents (county or area Extension personnel) must identify the leadership within each of the target systems and set about to interface with this leadership through informal and meaningful dialogue. Such dialogue should be characterized by the exhibition of empathy and understanding on the part of the professional change agent, and should be initially focused—and perhaps over an extended period of time—on a discussion of needs as perceived by leaders of the given system.*

Entree by county Extension staff members into the targeted systems will require their identifying closely with the formal and informal leadership of these systems. The absolute necessity of this task to determining the needs of the group and to obtaining their commitment to participate in programs focused on their needs is underscored by the authority and power vested in leader figures within the system or group.

Practically all of the diffusion studies to date suggest that informal leaders hold the key to the adoption of practices by the majority of their followers. The likeness of the leader in covert and overt characteristics to the total membership of his grouping is striking. The maintenance of positions of leadership in such groupings is contingent to a rather large extent upon the soundness of their judgment as perceived by the followers in helping them safeguard and maintain their welfare.

The identification of leaders by professional change agents is not sufficient; rather they must

consciously strive to establish communication with these persons through informal and meaningful dialogue. The dialogue should be characterized with the familiar as perceived by the leader(s). That is, the inputs of leaders into such initial conversations should be dominant. The change agent (County Agent) is characterized as a listener in the initial stages of such dialogue. The professional should strive to exhibit as much empathy as possible.

Only after a "positive" two-way relationship is established should the change agent begin to interject external information inputs into the dialogue. Such dialogue should not be restricted to a single meeting, but ideally should be continued through the period of time required to establish a meaningful relationship between the leaders and professional staff members.

5. *Through continuing dialogue with the leaders about their perceived needs of the target system, change agents should work toward establishing a communication system that, over time, could lead to the formation of a formal or informal leadership system closely allied with the public institution.*

The maintenance of a satisfying dialogue with the leaders of each target system, over time, should result in the establishment of effective two-way channels of communication. The acquisition of confidence by the leaders of the target system in the change agent and his capacity to deliver programs specific to their needs is an important ingredient in the establishment of such a communication system. This complex could and should ultimately lead to the actual formation of a leadership system(s) closely tied to the public institution.

6. *As rapport with the target system becomes strengthened through the delivery of programs leading to gratification and reinforcement of needs perceived by the target system, change agents should consciously and tactfully work at providing inputs into the system that will enable its members to translate extrinsic needs into felt needs.*

Through informal and meaningful dialogue between the leaders of target systems and change agents, the immediate perceived needs of the publics represented by the leaders should come into focus. The immediate efforts of the change agents should be directed toward generating programs focused on felt needs that will result in almost instant payoff to the holders of such needs.

Results perceived by the target publics to be meaningful in satisfying their needs should enhance their state of readiness and receptiveness to considering external information that has a bearing upon nonperceived needs. That is, the stage should be set for the professional change agents to begin channeling program inputs into the dialogue with the leaders and followers that will cause them to translate extrinsic needs into felt needs.

7. *Through a gradual and purposively planned socialization process of leaders and members of specified target systems, change agents should, over time, work toward linkage of leadership systems of target publics that will facilitate concerted effort on the part of the several target systems in effecting changes that are outside the grasp or ability of a single target system.*

The identification and fulfillment of needs of distinctive target groups is the first priority in effectively relating the resources of the adult education institution to its publics. However, the long-term objective should be to increase the socialization of these different groups through effective educational programs to the extent that they become knowledgeable about, concerned with, and committed to the seeking of solutions to problems or needs that transcend the boundaries of individual groups and affect the welfare of the general public.

This stage of socialization should ideally result in the linkage of leadership systems of target publics that will facilitate concerted effort on the part of the several groups in effecting needed changes that are outside the capability of a single group.

PROGRAM DESIGN AND IMPLEMENTATION

A major challenge confronting change agents is that of translating needs of target publics into a meaningful program design and developing effective strategies for its implementation. As leaders and change agents engage in dialogue over time, numerous needs will be identified. It is reasonable to assume that such needs will vary in their level of complexity.

The development of programs that will assure immediate fulfillment of perceived or felt needs by target publics should be given top priority by change agents. However, the change agent must be capable of perceiving and mapping the relationship between immediate, felt needs of target publics to higher level needs that will emerge as these lower level needs are satisfied. For example, the lower level need of a given group of homemakers to learn how to prepare a particular kind of dish must be seen by the change agent in relation to other higher level related needs that may emerge, such as the planning and preparation of balanced meals for their families, the selection and purchase of more economical foods that contain the necessary ingredients for

balanced meals, and ultimately concern for the health and happiness of their families.

This mental mapping by change agents is essential to the performance of their role as educators in designing programs to satisfy the immediate and felt needs of publics, but at the same time establishing the relationship of such needs to higher level ones that should eventually emerge as felt needs and be pursued by the learner in order to measure up to standards dictated by research findings and the expectations of society.

From an operational context, change agents—armed with an understanding of the perceived needs of learners and the relationship of these needs to higher level ones as inferred from research findings and the expectations of society, as well as how adults learn—must (1) design master (long-range) programs that identify the macro needs of their publics within which immediate and ascending levels of learner needs are encompassed, (2) design plans of work that outline instructional strategies for assisting learners to fulfill both felt and analyzed needs and (3) develop plans for activating the plans of work and subsequentially master long-term programs.

Long-Range Program

The translation of learner needs into a long-range program that effectively defines and establishes their relationships and linkages to higher level related needs is a complex, but essential, component of total programming.

To achieve this rigorous, but highly desirable end, change agents must possess a broad and comprehensive perspective of "what is ultimately desired and is possible in learner behavior in the content area" within which learner needs have been expressed. That is, if the learner's immediate perceived (felt) need is to learn how to read the Bible, the change agent must have a mental perspective or cognitive map of what is desired or is possible with respect to adult reading skills, based upon societal expectations of its members and research findings.

In addition to a cognitive map of what is desired, and indeed what is expected of adults in terms of their ability to read, the change agent must also understand and be capable of delineating prerequisite reading skills that adults must successively master to perform at the highest desired level.

It is important to note that macro needs and hence the ultimate in terms of behavior change in learners are visionary in that such needs and expected levels of learner performance are subject to constant change because of the continuous flow of new and improved inputs of knowledge emanating from research findings.

Nevertheless, the forward-looking educational change agent must maintain, as his hidden agenda, the pursuit of the ideal by learners in terms of their behavior. This ideal, expressed in macro needs and high level learner performance (objectives), provides the change agent with a map or design for diagnosing learner deficiencies, identifying and sequencing learner objectives designed to help learners fulfill needs depicted by these deficiencies, and the selection and organization of learner activities designed to help learners acquire the behavior specified in the learner objectives.

This master (long-term) plan provides a blueprint for change agents in purposefully guiding learner efforts toward the fulfillment of both perceived and nonperceived needs of a higher ascending order that over time could result in the fulfillment of macro needs.

Thus, the long-range program has, as its primary function, that of providing change agents with a master strategy for thinking about and indeed designing learner activities that will enable learners to experience fulfillment of immediate felt needs, and also map the next related learner behavioral tasks that must be mastered by such learners to fulfill higher level related needs. The immediate fulfillment of perceived learner needs and their related higher level counterparts are viewed as integral components of a master strategy designed to facilitate maximal development of the learner in terms of his abilities and expected performance levels imposed upon him by societal expectations.

The long-range program is viewed first and foremost as an internal prospectus developed by and for use by change agents. It is possible that such a prospectus could be popularized and disseminated to publics.

Three processual tasks are proposed for change agents in designing the long-range program. They are suggestive, and no claim is made regarding their inclusiveness or completeness.

1. *Change agents must specify the macro level needs of their target publics in the content areas within which learner needs have been expressed in agent-leader dialogue. Further, for each macro need delineated, change agents must identify—beginning with the lowest level learner need—prerequisite micro needs in their ascending order that must be successively mastered by learners to exhibit eventually the level of behavior implied in the statement of macro need.*

All needs of man are a part of a related network or hierarchy that may not be perceived by him. His tendency at a given time is to feel or perceive the immediate, based upon his state of socialization, with little or no knowledge about and/or interest in those needs that are outside

his social environment and realm of perception. For example, the immediate perceived need of the disadvantaged homemaker may be to learn how to prepare a cake. The need is immediate, and every effort should be expended in helping her fulfill this need. However, associated with this need may be, and often are, higher level needs.

The learner may have deficiencies with respect to other nutritional needs, such as how to assess nutritive values of various foods in relation to the food needs of her family, how to plan and prepare balanced meals, how to purchase economical foods that will provide a balanced diet, etc. Armed with an understanding of the nutritive needs of people, the change agent sets about to define the ideal "model" in terms of desired learner behavior and skills in nutrition.

Once the ideal behavioral prototype, with respect to nutritional behavior, is established, the change agent defines in sequential order the lower level prerequisite behaviors and skills that must be mastered by the homemaker-learner to attain the ideal behavior. This mapping of behaviors and skills in sequential order—proceeding from the most elementary level to the highest level of complexity and abstraction—in its complete context constitutes the basis for developing a hierarchy of objectives.

This hierarchy makes it possible to start where the homemaker is, in terms of level of knowledge, understanding, and skills, and to plan for her orderly, continuous intellectual growth.

The lack of appropriate attention by change agents to a detailed, thorough, and comprehensive analysis of existing learner behavior and needs in relation to higher level needs that have the potential of becoming intrinsically felt by learners has hampered change agent effectiveness in capitalizing on and sustaining learner motivation. Indeed, many change agents who lack this mental perspective have settled for one-shot learner activities, with little attention to how such activities could be used as a springboard in helping learners attain higher level needs.

Thus it is envisioned that the first component of the long-range program would be a comprehensive treatment of macro needs of learners or target publics, with particular attention being given to the numerous micro needs encompassed within each of the macro needs.

2. *Change agents must formulate for each macro need, macro level objectives, which specify the ideal "desired end in learner behavior" sought in fulfilling macro needs of publics. Desirably, agents would specify for each macro objective, teaching-level objectives that define specific behaviors to be mastered by learners to satisfy micro needs inferred or stated for each macro need.*

Macro needs establish the distance or spread that exists between learners' present or existing state of behavior and the ideal state of behavior that has been deduced from research findings and the expectations of society. The spread between these two extreme points may be viewed as a learner need continuum. The most elemental or learner perceived need is inferred on one end of the continuum, with the most ideal nonperceived learner need existing on the opposite end. Interspersed between both points are a number of prerequisite needs that must be fulfilled by the learner to attain the highest level need. The change agent has the responsibility of converting these needs into objectives that clearly specify the behavior that must be attained by learners to fulfill each need. Such objectives should clearly identify the learner, the behavior change desired, and the content area in which the behavior change is to take place.

The change agent should specify for each macro need in the form of an objective the ideal behavior to be sought in given publics. For each macro objective, specific teaching or learner objectives should be formulated in consonance with micro needs. These teaching-learner level objectives should begin with the felt needs of learners and continue with each successful higher level need leading to the macro need. This hierarchy of objectives constitutes a map for the change agent in selecting and organizing learner activities that are purposively oriented and which, if properly implemented, should ensure the continuing intellectual growth and development of the learner(s).

3. *Change agents must outline general educational and instructional strategies for assisting target publics and hence learners in acquiring or attaining behaviors specified in macro and micro objectives set forth in the preceding two processual tasks.*

This processual task provides change agents the opportunity to think about and preferably outline in preliminary form what will need to be done to accomplish each of the macro objectives. First and foremost, attention is focused on the public's state of being in terms of existent behavior and life style(s). Emphasis is given to inhibitors and facilitators of change that may or may not be present. Learning strategies, along with the effects of reference groups and aspects of culture, are taken into consideration in thinking about the change process. The absence or presence of resources that will be needed in structuring and sustaining learner activities for each macro objective is evaluated. Armed with this knowledge, change agents should

project and indeed outline strategies that, if successfully implemented, will result in learner fulfillment of needs defined in the long-range program.

Plans of Work

Implementation of the long-range program requires that carefully designed instructional strategies and plans be developed and effected by change agents. The complexity and interrelatedness of needs outlined in the long-range program do not lend themselves to immediate treatment. Many high level needs require several years of continuous and concentrated effort by change agents before their maximal attainment by learners can be reasonably assured. As indicated in the discussion of needs in the long-term program, the fulfillment of a given macro need may entail the attainment of a number of prerequisite behavioral changes by the learners. Planning for the orderly and effective acquisition of these prerequisite behaviors by learners is a major undertaking that besets the change agent.

For each macro need and, more specifically, the micro needs contained therein, teaching plans must be developed to guide the efforts of the change agent in facilitating learner fulfillment. These teaching plans constitute instructional units tailored to learner needs and objectives. Programmed over a given interval of time, these individual but related teaching plans should aid learners in acquiring the prerequisite behaviors and skills that collectively will enable them to exhibit the macro level of behavior specified in a given macro level need.

The composite of teaching plans tailored to help learners fulfill needs within an interval of a year is commonly referred to as a plan of work in the Cooperative Extension Service. The findings gleaned from change agents' diagnosis of learner needs in the long-range program constitute the basis for designing individual teaching plans and hence the plan of work. For each macro level need, change agents must address themselves to the following questions:

1. What are the specific learner needs encompassed within each macro need outlined in the long-term program?
2. What behavioral change(s) must learners attain to fulfill each of the micro needs contained within the macro needs?
3. What learner activities should be selected and how should they be organized to facilitate learner achievement of the desired behavior?
4. How should learner programs be assessed and what measures should be employed to evaluate learner activities?

The guided efforts of change agents in seeking answers to these questions constitute four processual tasks in developing teaching plans and plans of work.

1. *Change agents must delineate, order and sequence micro needs of learners inferred for each macro need.*

For each macro need there is a multitude of learner micro needs. Change agents must be capable of diagnosing macro needs of target publics and clearly defining micro needs of learner groups that must be satisfied before such subjects can be expected to exhibit the level of behavior inferred as a requirement for fulfilling defined macro needs. Concurrent with this diagnosis and delineation of micro learner needs, change agents must arrange them in a sequential order, starting with the most elemental and proceeding to the highest level and most complex micro level need. The sequencing of related micro needs inferred for high level macro needs will assist change agents in determining the starting point for various learner groups within a given target public, as well as aiding them in planning for their learners' orderly progression to fulfilling successive ascending level related needs. The detailed attention given to this important component of teaching plans will greatly facilitate change agent efforts in formulating for each need appropriate teaching-learner level objective.

2. *Change agents must formulate teaching-level objectives for each micro need inferred or stated for each macro need specified in the long-range program.*

Micro needs define the spread that exists between the learners' present state of behavior and/or skills and the level of behavior thought to be within the possibiliby of learner attainment. This perceived level of attainment in a content area is equated with the change in behavior to be sought by the learner. Hence, the change agent utilizes his understanding of learner needs which have been discerned from actual study of the learner, the cultural heritage of the learner, the expectations of the learner held by his society, and findings advanced by research to specify clearly the change in behavior toward which the learner's efforts are to be directed. This formulation results in the statement of a teaching-learner level objective that, if attained by the learner, should satisfy the need. In stating teaching-learner objectives, emphasis is placed on what the learner is to do. Ideally, well-stated teaching-learner objectives should clearly define the learner, the behavioral change to be sought, and the content area in which the change in behavior is to become operative. Contingent upon the complexity and scope of the micro need, change agents could conceivably formulate more than one teaching-

learner level objective. These objectives, which evolve from learner needs, become the target toward which the change agents' and learners' efforts are directed. They constitute the bases for decisions by change agents concerning the selection and organization of appropriate learner activities in which learners will engage to achieve the change in behavior. Teaching-level objectives are quite specific and within the realm of learner achievement.

3. *Change agents must select and organize learner activities for each teaching-learner level objective that will assure learners' attainment of the behavior specified in the objective.*

Having accomplished the crucial task of identifying the specific behavioral changes to be sought in the learner in teaching-learner objectives, the change agent should turn his attention to planning for their attainment. Emphasis on intended alterations in the behavioral patterns of a given target public with defined needs (micro) focuses on the learner as the chief component of the change (educational) effort. In analyzing the present competencies of the learner in relation to intended changes in behavior, the change agent considers those experiences that will result in maximum attainment of the behavior. Taken in this light, the change agent is less a purveyor of information than a strategist who designs environments (situations, events, activities) in which learners are afforded opportunities to experience certain effects. It is the active interaction between the learner and the structured situation—on a mental and/or physical level—which results in content being assimilated by the learners. Thus, learning experiences are not what the change agent does; they are not what appears in a teaching plan; they are not the facilities, devices, or techniques used. Learning experiences are what the learner actively interacts with, physically and/or mentally, as a result of his participation in the learning process. The change agent's role is thus to structure an environment in which the desired reactions can and will be forthcoming from the learner.

The design of learning experiences takes its cue from the teaching-learner objectives to be attained. Learners must be afforded opportunity to practice the behavior specified in the objective. They must be afforded opportunity to experience feedback in terms of the success of their efforts in achieving the behavior described in the objective. Equally important is to provide learners the opportunity to associate that which they are attempting to learn with ideas, events, or notions with which they have had some prior experience. In designing learner experiences, change agents should keep in focus the fact that most learners will have to be afforded opportunity to relearn or rearrange much of which they already have as part of their life styles.

In designing learning experiences, three important criteria will need to be utilized in organizing the experience to ensure continuous maximal growth on the part of the learners. Specifically, the experience will need to be organized to provide the learner several opportunities to practice and try out the new behavior. Second, consideration will have to be given to organizing the experiences in a manner that will permit the orderly progression of the learner from the acquisition of simple to more complex behaviors in a given content area. This concept of sequence in organizing learning experiences is consistent with the need to make provisions for learners to achieve continually higher level related needs, as pointed up in previous discussion of macro and micro needs. A third element or criterion to be considered in organizing experiences for the learner is to make provision for learners to perceive relationships between that which is being learned and other situational contexts.

4. *Change agents must plan for the assessment of learner progress in achieving the behavioral outcomes specified in each teaching-learner level objective and rigorous evaluations of learner activities provided them in helping them acquire the intended changes in behavior.*

A teaching plan is not complete until plans are formulated for assessing learner progress in relation to behavioral changes specified in objectives and the teaching-learner efforts expended in achieving such changes. Actually, evaluation begins in the formative stages of a teaching plan and extends throughout its development and implementation. For example, decisions about teaching-learner objectives require evaluative judgments. So do the selection and organization of learner activities that will help attain the desired objectives. These evaluations are the preliminary and intermediate stages of evaluation.

Here a problem arises. The criteria used to check learning activities are general principles, not highly precise statements of the exact conditions likely to encourage the learning desired. Furthermore, any set of learning activities (experiences) must be measured against a number of criteria. Since each of these can only be approximated, one cannot predict with perfect accuracy that certain learner activities will actually produce desired results. In addition, the actual teaching-learner process involves many variables, including differences in individual students, the environmental conditions in which the learning takes place, the change agent's skill in setting the conditions as they are planned, and the personality of the change

agent. These variables make it impossible to guarantee that the actual learning experiences (activities) provided for are precisely those that are outlined. It is important to check carefully whether or not the plans for learning experiences and activities actually function to guide the change agent in producing the outcomes desired. For these reasons, continual evaluation is imperative throughout the development of the teaching plan, with the primary focus on the degree to which the teaching-learner level objectives of the plan are being attained.

There are essentially three aspects of evaluation with respect to teaching plan objectives:

1. Evaluation must appraise the behavior of the student, since the objective(s) of a given teaching plan is to change his behavior.

2. Evaluation must be made at initial and succeeding stages to identify changes. A teaching plan cannot be evaluated by assessing the student only at the end of the plan. Without knowing where he was at the beginning, it is impossible to determine the scope or degree of change in his behavior.

3. Appraisals made during or at the end of the plan are not a sufficient basis for an educational evaluation because some of the desired objectives may be attained only temporarily. Responses can be learned, then rapidly forgotten. To have some estimate of the permanence of the learning requires another point of evaluation some time after the instruction has been completed. Hence, there is need to plan for follow-up studies of learners in order to obtain evidence of the permanence (or impermanence) of the learning acquired in the program.

Plans should be made to utilize the findings of such evaluative studies to adapt and/or redirect teaching plans as warranted. Slight changes in teaching plans may improve considerably the output, namely, changes in learner behavior.

In retrospect, plans should be developed to assess learner activities and other inputs to determine whether or not they are contributing to learners' achievement of the teaching-learner objectives. From the very beginning, plans should be made and effected to ascertain the degree to which learners modify or change their behavior as specified in the objectives. These plans should make provision for evaluation of learners before, during, and following their actual participation in a teaching-learning situation. Last, but not least, these findings should be utilized to redirect and/or adapt teaching plans to improve the quality of the product, namely, change in the behavior of learners.

Activating Plans of Work

The actual implementation of teaching plans is a crucial task that confronts change agents. Teaching plans are useless unless they are implemented. The techniques of activating a teaching plan(s) require excellence of change agents in mobilizing, developing, and utilizing resources required to implement and carry through on learner activities; effective and constructive monitoring of the teaching-learning process; the meaningful utilization of opportunities to reinforce learners; and being sensitive to the need for and a willingness to redirect learners' activities if observations and feedback infer the need for such action. Operationally, four elemental, but important, processual tasks may be inferred for change agents in activating plans of work.

1. *Change agents must identify, mobilize, develop, and utilize resources needed to implement and carry through effectively on planned learner activities enumerated in teaching plans and plans of work.*

The effective implementation of specified learner activities may require the utilization of several kinds of resource people. The nature of the learner activity will dictate the kinds of resource competencies needed to plan and implement the activity. Particular attention must be given to identification and recruitment of appropriate resource persons (*i.e.*, volunteer leaders, teacher aides, other professional personnel). A special attempt needs to be made to help these resource persons acquire a thorough understanding of what will be expected of them in following through on the planning and implementation of a designated learner activity. Technical training in content and teaching-learning strategies and methodologies must be provided those who are responsible for specific learner activities. Too, opportunities must be provided for continual reinforcement of such resource personnel.

Plans also will have to be made to acquire the kind of literature and other resources needed to implement learner activities. Such teaching-instructional aids must be tailored to the specific situation.

2. *Change agents must make provision for the continuous monitoring of planned learner activities.*

The activation and continual renewal of learner activities especially selected and organized to produce desired learner outcomes is a crucial element of the change process. Change agents should adopt as part of their role the responsibility for and commitment to periodically monitoring and examining on-going

learner activities. Such monitoring must be constructive and purposive. Particular emphasis should be given to an examination of opportunities being provided for learner involvement and interaction with the content as well as the extent to which learners are being afforded the opportunity to practice the new behavior delineated in the objective(s). Another relevant point of observation is that of trying to obtain a perspective of teacher behavior in providing for continuous learner reinforcement.

The ability of resource persons to deliver should be kept under constant surveillance. Too, the relationship between teachers and learners should be continually examined.

Findings obtained in the monitoring of learner activities should be tactfully shared with responsible persons. These findings should be used to improve the quality of learner activities.

3. *Change agents should provide for the continuous reinforcement of learners.*

Motivation is the key to an individual's continued persistence in expending effort to acquire new behavior. A major factor in motivating learners is that of systematically and deliberately providing them with feedback on the progress they are attaining in accomplishing their objectives. This important requirement for learning should not be left to chance. Rather, change agents with their resource personnel should plan for a reward system that will provide instant, continuous feedback to learners. Such a reward system may need to be tailored to the individual learners, since learners' abilities and needs vary. The use of covert and overt rewards should be planned for, depending upon the learner and his situation.

4. *Change agents must maintain a continuing sensitivity to the need for and a continuing willingness to adapt and/or redirect learner activities as observations and feedback infer the need for such changes.*

The need for adjustments or adaptations in learner activities is of crucial importance in facilitating the learning process. Rarely, if ever, do change agents and their resource personnel implement learner activities as actually planned. Because of the complexity of human behavior and the multitude of variables involved, change agents need to provide for flexibility in learner activities so that needed adjustments can be effected.

Change agents and their leader resource personnel must make observations of learner activities continuously, so that needed revisions can be made. Hence, it is imperative that change agents and leaders possess a thorough understanding of their learners, the situation with which such learners are confronted, and the teaching-learning process in order to make objective observations about what is happening to the learner.

PROGRAM EVALUATION AND ACCOUNTABILITY

A major challenge confronting the educational institution is that of determining the impact of its planned programming efforts in effecting desired behavioral changes in its publics. The total system and its individual subsystems must be continually sensitive to and committed to the concept of accountability. To achieve this end every subsystem within the organization must perfect and utilize tested and valid methods for pinpointing evidences in relation to their program objectives and for collecting such evidences. Although all subsystems (job groups) in the organization or institution have strategic roles to perform in overall institutional program evaluation, the major responsibility for basic program evaluation rests with the county and/or area operational units. That is, the results obtained through county-based programs, plans of work, and teaching plans must be determined before judgments can be rendered about the effectiveness of the institution's overall program effectiveness. Supporting specialized and program subsystem staffs can and should reinforce county and/or area staff members' program evaluation efforts by helping them identify and specify types of evidences to be sought in their respective content areas and in developing valid and reliable tools of measurement to be utilized in collecting and interpreting evidence(s) in relation to teaching-learner objectives and long-term program objectives. Theoretically, judgments rendered about the effectiveness of the total institution in accomplishing its macro program objectives should represent the summed evaluative findings gleaned from long-term programs and plans of work developed and effected at its county and area operational unit levels. The specificity of evidences in relation to levels of objectives and the preciseness of measures developed for collecting such evidence will determine to a great extent the institution's capability in assessing its overall program impact.

Since the major responsibility for program evaluation rests with change agents at the operational level, they must be thoroughly equipped with and skilled in the use of evaluative tools that will facilitate continuous evaluation of program outputs and inputs in relation to teaching-learner level objectives and to relate these findings to the macro objectives of their long-term

programs. Their program counterparts at higher levels of the institution must be capable of relating and interpreting these results to the institutional program objectives. Further, these higher level program counterparts must be knowledgeable about and highly proficient in teaching their operational level program counterparts at county and area levels how to detect, discern, and evaluate program results and how to construct and utilize various measurement instruments.

From an operational context, three major processual tasks are inferred for change agents and their specialized supervisory program counterparts in program evaluation and accountability. These tasks are suggestive and are advanced as a framework for guiding the thoughts of professionals in thinking about program evaluation and accountability.

1. *Change agents must specify program outputs (evidence) in relation to teaching-learner level objectives. Desirably, change agents should be assisted by their supervisory and specialized program counterparts in specifying evidence(s) to be obtained to verify successful attainment of ascending higher level related teaching-learner level objectives. Change agents, supervisory, and specialist program personnel must acquire skill in relating evidence obtained about the attainment of teaching-learner objectives at the teaching plan and plan of work levels to long-term program objectives and subsequently macro institutional objectives.*

Outputs (evidence) for teaching-learner level objectives must be identified in order to make informed judgments about their successful attainment. This task is the primary responsibility of change agents at the level at which the actual teaching takes place. However, supervisors and specialists can be valuable resource persons to the change agents in specifying and pinpointing such evidences. These outputs may be increased knowledge, changed attitudes, and/or the acquisition of new skills by learners. Another level of program output may be the extent to which certain practices have been adopted. These behavioral outputs may be both overt and covert. That is, some outputs may be observable and measurable while others may only be inferred.

In determining program outputs, change agents and their supervisory-specialist program counterparts must consider the validity and reliability of evidence(s) used to verify successful attainment of specified objectives. Likewise, change agents need to examine initial and subsequent measures in determining program outputs. Follow-up studies on learner participants may be helpful to change agents in ascertaining the degree of the permanency of changes in learners.

Ideally, sequenced teaching-learner level objectives in a content or macro need area and their outputs should be additive in nature. That is, the outputs of sequenced teaching-learner objectives within a need area should contribute to the major program outputs specified in the long-range program objectives. Likewise, these major program outputs should contribute to the overall institutional outputs specified in the institutional objectives. This concept of hierarchy of objectives is important for the large decentralized educational system, such as the Cooperative Extension Service. It is possible for subsystems in an educational institution to produce outputs which do not contribute to the macro objectives of the total organization. Thus, it is essential that means be devised for examining outputs in relationship to the organization's hierarchy of objectives.

In addition to determining the major program outputs and their hierarchial nature, change agents, assisted by their supervisory and specialist program counterparts, need to make judgments, relative to the appropriateness of outputs in meeting needs. After careful examination, they may conclude that the outputs produced do not contribute to fulfilling the needs that have been identified in teaching plans and planned long-term programs.

2. *Change agents, assisted by their supervisory and specialist program colleagues, must study, analyze, and evaluate program inputs at the instructional, program, decision-making, and institutional levels in relation to their appropriateness and effectiveness in generating desired program outputs specified in teaching-learner level objectives, long-term program objectives, and institutional, macro level objectives.*

The actual program outputs are rarely if ever the same as those intended or desired. There are numerous variables that cannot be completely controlled; hence the actual outputs may vary from those intended. Some of these variables may be referred to as program inputs. One major program input focuses on the macro institution, including its structure, management processes, and programming processes. Other program inputs include such variables as the adequacy of the linkages effected between the institution and its target publics to identify needs; the adequacy and accuracy of the long-range program in reflecting the felt and analyzed needs of target publics; the specificity and clarity of objectives in relation to learner needs at all levels; time; leaders; materials and supplies; learner participants; the reliability and validity of factual information; and numerous others. Change agents need to examine the outputs in relation to the actual program inputs so

as to understand these variables better and hence be in a better position to revise the input-output system.

The interaction between program inputs at all levels of the system have an important bearing on program outputs. The dynamics of such program inputs as leader identification, training, and utilization; decision-making; social action; planning and the design and implementation of teaching-learning activities may be major determinants in the teaching-learning process. A thorough understanding of the dynamics of these inputs (activities) may help change agents to understand why certain program outputs were realized. If the crucial points in those program inputs and their packaging and delivery can be identified for both successes and failures in regard to program outputs, change agents will have a better understanding of the outputs achieved and how to modify those types of inputs to produce more desirable outputs.

3. *Change agents, supervisors, specialists, and administrators must exhibit skills in interpreting results or program outputs in relation to objectives and inputs and in the actual utilization of these findings as a basis for modifying and/or redirecting program efforts, renewal of institutional structures and management processes, and in accounting to their publics, funding sources, and to their profession.*

The continuous evaluation of its programs in relation to results attained or being attained is of first priority to the Extension system. There are several reasons for engaging in program evaluation; however, a major reason is to use these evaluative findings to modify, revise, and/or redirect program inputs for present or future program cycling. These findings may reveal that the objectives need clarifying, or that the needs of target publics require further amplification, or that more time is needed, or that the teaching-learner strategies need to be changed and/or modified.

A second major use of program evaluative findings is to examine the viability and effectiveness of the total institution. The renewal of the system (institution) in terms of structure and key management processes may be necessary in order for effective fulfillment of its mission. Change agents, supervisors, specialists, and administrators have complementary roles to perform in accomplishing this on-going task.

The accurate reporting of program results is of a continuing nature. Extension's public must be continually apprised of the successes and failures of the system. This is particularly true of the learners, leaders, systems, and other key publics. In addition, means must be devised and implemented for reporting program results to the system's funding agencies. Extension must be continually cognizant of its mission and its responsibility to the public domain. That is, the Extension system must ever be prepared to account to its legislative bodies for its programs and to justify the confidence and support accorded it by these law-making and policy-formulation groups. In maintaining and improving the standards of the profession, it is imperative that professional educators throughout the system continually examine the results of their efforts in relation to the expected roles of professional adult education change agents.

List of References

Beal, George M., *et al. Leadership and Dynamic Group Action.* Ames, Iowa: Iowa State University Press, 1962.

Beal, George, *et al. Social Action and Interaction in Program Planning.* Ames, Iowa: Iowa State University Press, 1966.

Berrien, Frederick K. *General and Social Systems.* New Brunswick, N. J.: Rutgers University Press, 1968.

Bertrand, Alvin C. *Basic Sociology.* New York: Appleton-Century-Crofts, 1967.

Bloom, Benjamin S., *et al. Taxonomy of Educational Objectives.* New York: David McKay Company, 1956.

Boone, E. J., *et al.* "A Conceptual Schema of the Programming Process in the Complex Adult Education Organization with Special Emphasis on its Sociological Implications" (unpublished paper). Raleigh, N. C.: Department of Adult and Community College Education, North Carolina State University, 1967.

Boone, E. J., and J. M. Kincaid. "The Cooperative Extension Programming Function" (unpublished manuscript). Raleigh, N. C.: Department of Adult and Community College Education, North Carolina State University, 1963.

Boone, E. J., and E. H. Quinn. *Curriculum Development in Adult Basic Education.* Chicago: Follett Publishing Company, 1967.

Burton, William H. *The Guidance of Learning Acitivites.* New York: Appleton-Century-Crofts, Inc., 1952.

Campbell, Roald F., and Russell T. Gregg. *Administrative Behavior in Education.* New York: Harper and Brothers, 1956.

Cartwright, Dorwin, and Alvin Zander. *Group Dynamics, Research and Theory.* Evanston, Illinois: Row, Peterson and Company, 1960.

Copp, James H. (ed.). *Our Changing Rural Society: Perspectives and Trends.* Ames, Iowa: Iowa State University, 1964.

Drucker, Peter. *The Practice of Management.* New York: Harper and Brothers, 1954.

Foster, George M. *Traditional Cultures: The Impact of Technological Change.* New York: Harper and Brothers, 1962.

Furst, Edward J. *Constructing Evaluation Instruments.* New York: David McKay Company, 1964.

Ginzberg, Eli, and E. W. Reilly. *Effecting Change in Large Organizations.* New York: Columbia University Press, 1958.

Gore, William J., and J. W. Dyson (eds.). *The Making of Decisions.* New York: The Macmillan Company, 1964.

Granger, Charles H. "The Hierarchy of Objectives," *Harvard Business Review*, XLII, No. 3 (May-June, 1964), 63-74.

Griffiths, Daniel E. *Administrative Theory.* New York: Appleton-Century-Crofts, Inc., 1959.

Griffiths, Daniel E. *Behavioral Sciences and Educational Administration.* 63rd Year Book of NSSE, Part II. Chicago: University of Chicago Press, 1964.

Haiman, Franklyn S. *Group Leadership and Democratic Action.* Cambridge, Massachusetts: The Riverside Press, 1951.

Halpin, Andrew W. (ed.). *Administrative Theory in Education.* New York: The Macmillan Company, 1958.

Havighurst, Robert J., and Betty Orr. *Adult Education and Adult Needs.* Chicago: Center for the Study of Liberal Education for Adults, 1958.

Houle, Cyril O. *The Effective Board.* New York: Association Press, 1960.

Katz, Daniel, and R. L. Kahn. *The Social Psychology of Organizations.* New York: John Wiley and Sons, Inc., 1966.

Knox, Alan. "Social System Analysis of the Adult Education Agency" (mimeographed). New York: Columbia University, 1963.

Krathwohl, David R. "Stating Objectives Appropriately for Program, for Curriculum, and for Instructional Materials Development," *Journal of Teacher Education*, XVI (March, 1965), 83-92.

Krathwohl, David R., *et al. Taxonomy of Educational Objectives.* New York: David McKay Company, 1964.

Leagans, J. Paul. "A Concept of Needs," *Journal of Cooperative Extension*, II, No. 2 (Summer, 1964), 89-96.

Lindvall, C. M. (ed.). *Defining Educational Objectives.* Regional Commission on Educational Coordination. Pittsburgh: University of Pittsburgh Press, 1964.

Lippitt, Gordon L. *Organization Renewal.* New York: Appleton-Century-Crofts, Inc., 1969.

Lippitt, Ronald, *et al. The Dynamics of Planned Change.* New York: Harcourt, Brace and World Inc., 1958.

Loomis, Charles P. *Social Systems.* Princeton, N. J. D. Van Nostrand, Inc., 1960.

Miller, Harry. *Participation of Adults in Education: A Forced Field Analysis.* Boston: Center for Study of Liberal Education for Adults, 1967.

Miller, Harry L., and Christine McGuire. *Evaluating Liberal Adult Education.* Chicago: Center for Study of Liberal Education for Adults, 1961.

Pfiffner, J. M., and F. P. Sherwood. *Administrative Organization.* Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1960.

Sargent, S. S., and Robert C. Williamson, *Social Psychology.* New York: The Ronald Press Company, 1958.

Simon, H. A. *Administrative Behavior.* 2nd ed. New York: The Macmillan Company, 1957.

Spicer, E. H. *Human Problems in Technological Change.* New York: Russell Sage Foundation, 1950.

Suchman, Edward A. *Evaluative Research: Principles and Practices in Public Service and Social Action Programs.* New York: Russell Sage Foundation, 1967.

Tyler, Ralph W. *Principles of Curriculum and Instruction.* Syllabus for Education 360. Chicago: University of Chicago Press, 1950.

Tyler, Ralph W. *Basic Principles of Curriculum and Instruction.* Rev. ed. Chicago: University of Chicago Press, 1963.

Tyler, Ralph W. "Concepts, Skills and Values and Curriculum Development" (mimeographed paper presented at Extension Curriculum Development Conference, Washington, D.C., December 8-12, 1963).

Tyler, Ralph W., *et al. Perspectives of Curriculum Education.* Chicago: Rand McNally and Company, 1967.

Williams, Robert M. *American Society.* New York: Alfred A. Knopf, 1970.

ERIC Clearinghouse

JAN 26 1972

on Adult Educ

NORTH CAROLINA STATE UNIVERSITY
AT RALEIGH